Bryan W. Shaw, Ph.D., Chairman Buddy Garcia, Commissioner Carlos Rubinstein, Commissioner Mark R. Vickery, P.G., Executive Director



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 29, 2011

Mr. Gary Miller, Remedial Project Manager U.S. EPA, Region 6 Superfund Division (6SF-RA) 1445 Ross Avenue, Suite 1200 Dallas, Texas 75202-2733

Re: Draft Feasibility Study, dated April 14, 2011 Gulfco Marine Maintenance Federal Superfund Site Freeport, Brazoria County, TX

Dear Mr. Miller:

The Texas Commission on Environmental Quality (TCEQ) Remediation and Toxicology Divisions have completed the review of the *Draft Feasibility Study* (FS), dated April 14, 2011 for the Gulfco Marine Maintenance Federal Superfund Site (Gulfco).

The FS was prepared by Pastor, Behling, & Wheeler, LLC (PBW) of Round Rock, Texas on behalf of LDL Coastal Limited LP, Chromalloy American Corporation, and Dow Chemical Company, collectively referred to as the Gulfco Restoration Group. The purpose of the FS is to develop a range of remedial alternatives; screen those alternatives in relation to the Remedial Action Objectives (RAOs) identified based on the conclusions of the Remedial Investigation, the Baseline Human Health Risk Assessment, and the Baseline Ecological Risk Assessment (BERA); and then perform a more detailed analysis of surviving alternatives in order to identify a preferred remedial action alternative. The approved Final BERA identified no potential risk to ecological receptors and therefore no RAOs were developed based on ecological endpoints. As the RAOs in the draft FS address concerns related to future human health exposure associated with potential fish consumption and North Area groundwater, the TCEQ has the following comments:

 It is unclear from the draft FS if the Texas Surface Water Quality Standards (TSWQS) are really being used to identify applicable or relevant Mr. Gary Miller April 29, 2011 Page 2

- and appropriate requirements. The Gulfco Site is adjacent to the Intracoastal Waterway, and this portion of the Intracoastal Waterway is a tidal water body. A tidal water body is by definition deemed to be a sustainable fishery (§307.3 (a)(67)). Therefore, surface water concentrations in the Intracoastal Waterway adjacent to the site should meet the fish-only criteria for human health as specified in the TSWQS (§307.6 (d)(2)(B)).
- 2. Based on the data presented in the Final Remedial Investigation (RI) Report, the Zone A groundwater bearing unit (GWBU) concentrations for various compounds exceeded their 1% aqueous solubility limits. The TCEQ analysis of monitoring data over time observed that some groundwater concentrations in the site monitoring wells were below detectable levels during the July 2006 June 2007 time period. Then in June 2008, monitoring results showed groundwater concentrations in the same wells at levels that exceeded the respective contaminants of concern (COCs)'s 1% aqueous solubility limit (e.g., Figures 65, 72, 73; Final RI Report). Such an observation is an indication that Non-Aqueous Phase Liquid (NAPL) present in the Zone A GWBU is migrating, as described in the 2008 TCEQ Regulatory Guidance (Reference 1).
- The TCEQ Guidance, in Table 23, prescribes a "recovery only" response action for NAPL migrating in the saturated zone, and which is not in a Plume Management Zone.
- 4. The prescribed Texas Risk Reduction Program (TRRP) NAPL response action endpoint in this situation is achieved when groundwater concentrations are reduced to those below the 1% aqueous solubility limit for the respective COCs.
- 5. Based on the discussion presented above, the prescribed TCEQ TRRP NAPL response action for migrating NAPL is most closely consistent with the implementation of groundwater recovery, Alternative 3 as described in Section 5 of the FS. However, while Alternative 3 recommends hydraulic control of groundwater via extraction wells, the stated system design criteria does not include NAPL recovery.
- 6. Because the NAPL recovery response action is limited to the specification in comment 4 above, the TCEQ believes that groundwater recovery is most appropriate for addressing the NAPL concern. However, the TCEQ considers that the current scope of Alternative 3 is not applicable and excessive in its design criteria. As such, the TCEQ recommends a scope modification to Alternative 3 that addresses the NAPL response action recovery and significantly reduces the scope and cost of the system design criteria to simply achieving the outstanding NAPL response action endpoint.

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## References:

1. PBW. 2011. Final Remedial Investigation Report, Gulfco Marine Maintenance Superfund Site, Freeport, Texas.

2. TCEQ. 2008. *Risk-Based NAPL Management*, TCEQ Regulatory Guidance RG-366/TRRP-32, TCEQ Remediation Division, Austin, TX.

- 3. USEPA. 1992. Estimating Potential for Occurrence of DNAPL at Superfund Sites. EPA Quick Reference Fact Sheet, EPA Publication 9355.4-07FS, US Environmental Protection Agency, Washington D.C.
- 4. USEPA. 1994. DNAPL Site Characterization, EPA 540/F-94/049, US Environmental Protection Agency, Robert S. Kerr Laboratory, Ada, OK..

If you have any questions, please contact me at (512) 239-6368.

Sincerely,

Ludmila Voskov, P.G., Project Manager

Superfund Section Remediation Division

Lv/cw